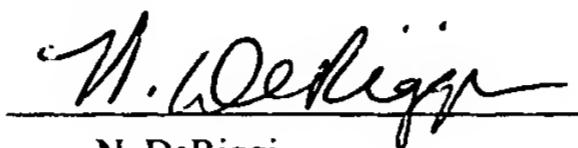


PATENT  
Docket No. 204552016410

**CERTIFICATE OF HAND DELIVERY**

I hereby certify that this correspondence is being hand filed with the United States Patent and Trademark Office in Washington, D.C. on January 17, 2002.

  
N. DeRiggio

J1050 U.S. PTO  
10/050078  
01/17/02

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In the application of:

Toshiyuki OKUMURA

Serial No.: NEW

[Divisional of 09/380,537 filed Sept. 2, 1999]

Filing Date: January 17, 2002

For: GALLIUM NITRIDE  
SEMICONDUCTOR LIGHT EMITTING  
DEVICE HAVING MULTI-QUANTUM-  
WELL STRUCTURE ACTIVE LAYER,  
AND SEMICONDUCTOR LASER  
LIGHT SOURCE DEVICE

Examiner: unassigned

Group Art Unit: unassigned

**INFORMATION DISCLOSURE  
STATEMENT UNDER 37 C.F.R. § 1.97**

Commissioner for Patents  
Washington, D.C. 20231

Sir:

Pursuant to 37 C.F.R. § 1.97 and § 1.98, Applicants submit for consideration in the above-identified application the documents listed on the attached Form PTO-1449. Copies of the documents were previously submitted in an Information Disclosure Statement and/or Office Action, directed to the related application Serial Number 09/380,537, filed September 2, 1999, and, accordingly, copies are not included herewith. This protocol conforms with 37 C.F.R.

§1.98(d) and M.P.E.P. 609(A)(2). The Examiner is requested to make these documents of record in the application.

This Information Disclosure Statement is submitted with the application; accordingly, no fee or separate requirements are entailed.

Applicants would appreciate the Examiner's initialing and returning the Form PTO-1449, indicating that the information has been considered and made of record herein.

The information contained in this Information Disclosure Statement under 37 C.F.R. § 1.97 is not to be construed as a representation that: (i) a complete search has been made; (ii) additional information material to the examination of this application does not exist; (iii) the information, protocols, results and the like reported by third parties are accurate or enabling; or (iv) the above information constitutes prior art to the subject invention.

In the event that the transmittal letter is separated from this document and the Patent Office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing 204552016410.

Dated: January 17, 2002

Respectfully submitted,

By:



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Form PTO-1449		Docket Number 204552016410	Application Number NEW
INFORMATION DISCLOSURE CITATION IN AN APPLICATION <i>(Use several sheets if necessary)</i>		Applicant Toshiyuki OKUMURA	
		Filing Date January 17, 2002	Group Art Unit not assigned
		Mailing Date January 17, 2002	



## U.S. PATENT DOCUMENTS

Examiner Initials	Ref. No.	Date	Document No.	Name	Class	Subclass	Filing Date If Appropriate

## FOREIGN PATENT DOCUMENTS

Examiner Initials	Ref. No.	Date	Document No.	Country	Class	Subclass	Translation YES NO
	1.	10/1988	63-257286 A	Japan			abs.
	2.	6/1990	2-168746	Japan			X
	3.	6/1996	EP 0 716 457 A2	EPO			X
	4.	10/1996	08-264902 A	Japan			abs.
	5.	11/1996	08-316528 A	Japan			abs.
	6.	11/1996	08-316563	Japan			abs.
	7.	12/1996	EP 0 746 067 A1	EPO			X
	8.	12/1996	GB 2 301 708 A	UK			X
	9.	12/1996	08-330668	Japan			abs
	10.	12/1996	08-330680	Japan			abs.
	11.	02/1997	09-036430 A	Japan			abs.
	12.	05/1997	09-116225 A	Japan			abs.
	13.	07/1997	09-191160 A	Japan			abs.

## OTHER DOCUMENTS

(including author, title, Date, Pertinent Pages, Etc.)

Examiner Initials	Ref. No.	Title
	14.	"Ridge-geometry InGaN multi-quantum-well-structure laser diodes," by Shuji NAKAMURA et al., Appl. Phys. Lett. 69 (10), 2 September 1996, American Institute of Applied Science, pp: 1477-9
	15.	Applied Physics Letters, Vol. 69, No. 20, Page 3034-3036 entitled Continuous-Wave Operation of InGaN Multi-Quantum-Well-Structure Laser Diodes at 233 K, S. Nakamura et al.
	16.	DATABASE WPI Section Ch, Week 9027 Derwent Publications Ltd., London, GB; Class A88, AN 90-204849 XP 002111575 & JP 02 135141 A (TOYOBOKK), 24 May 1990 (1990-05-24) *abstract*

EXAMINER:

DATE CONSIDERED:

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Form PTO-1449		Docket Number 204552016410	Application Number NEW
INFORMATION DISCLOSURE CITATION IN AN APPLICATION <i>(Use several sheets if necessary)</i>		Applicant Toshiyuki OKUMURA	
		Filing Date January 17, 2002	Group Art Unit not assigned
		Mailing Date January 17, 2002	

17.	Patent Abstracts of Japan Vol. 018, No. 673 (E-1647), December 19, 1994 (1994-12-19) & JP 06 268257 A (Nichia Chem Ind. Ltd), September 22, 1994)
18.	Kortel: "Interaction of the Dopants MG and SI In Alxga-XAS/GAAS Heterolayers (MOVPE): Application to DQW Laser Structures" Journal of Crystal Growth, NL, North-Holland Publishing Co., Amsterdam, Vol. 107, No. 1 /04, January 1, 1991, Pages 779-783, XP000246687
19.	Chen Q. et al: "UV, Blue and Green Light Emitting Diodes Based on GaN-InGaN Multiple Quantum Wells Over Sapphire And (111) Spinel Substrates" Materials Science And Engineering B, Ch. Elsevier Sequoia, Lausanne, Vol. 43, No. 1-3, January 1, 1997 Pages 265-268
20.	Laidig W. D. et al.: "Properties of INXGAI-XAS-GAAS Strained-Layer Quantum-Well-Heterostrcuture Injection Lasers" Journal of Applied Physics, US, American Institute of Physics. New York, Vol. 57, No. 1 January 1985, Pages 33-38
21.	Patent Abstracts of Japan Vol. 017, No. 453 (E-1417), August 19, 1993 & JP 05 102604 April 23, 1993
22.	Itaya K. et al.: "Room Temperature Pulsed Operation of Nitride Based Multi-Quantum-Well Laser Diodes With Cleaved Facets on Conventional C-Face Sapphire Substrates" Japanese Journal of Applied Physics, JP, Publication Office Japanese Journal of Applied Physics. Tokyo, Vol. 35, No. 10B, Part 02, October 15, 1996 Pages L1315-L1317

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